

**Communicable Disease Epidemiology
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Public Health
Seattle & King County



November 16, 2009

INFLUENZA SITUATION REPORT for CDC Week 45 (ending 11/14/09)

Snapshot (updated 11/16/09):

- Emergency department (ED) visits for influenza like illness (ILI) have been decreasing for two consecutive weeks, and were back down to the range observed during the spring 2009 H1N1 outbreak for the week ending 11/14/09.
- Hospital admissions for 2009 H1N1 flu currently exceed levels seen at the height of the spring outbreak, though the number of reported hospitalizations has been decreasing for the past few weeks.
- Two deaths in King County residents confirmed to have 2009 H1N1 were reported during week 45. These two individuals, an elderly man and a middle-aged woman, had underlying health conditions.
- The number of specimens submitted and testing positive for influenza from our outpatient surveillance system has decreased for the past two weeks.
- The proportion of deaths due to pneumonia and influenza has been below the epidemic threshold since mid-September.
- Several long-term care facilities have reported cases of influenza-like illness in their facilities since mid-October.
- School absenteeism has been fairly stable for the last several weeks.

For information on current surveillance and testing guidelines for 2009 H1N1 influenza, see:

<http://www.kingcounty.gov/healthservices/health/preparedness/pandemicflu/swineflu/providers.aspx>.

Case counts, 2009-2010 flu season (updated 11/16/09).

2009-2010 Influenza Season (starting October 5th):

Lab-confirmed 2009 Influenza A H1N1 Hospitalizations: 156
 Lab-confirmed 2009 Influenza A H1N1 Deaths: 5

Lab-confirmed Influenza Hospitalizations, not H1N1 or not tested for H1N1: 67
 Lab-confirmed Influenza Deaths, not H1N1 or not tested for H1N1: 1

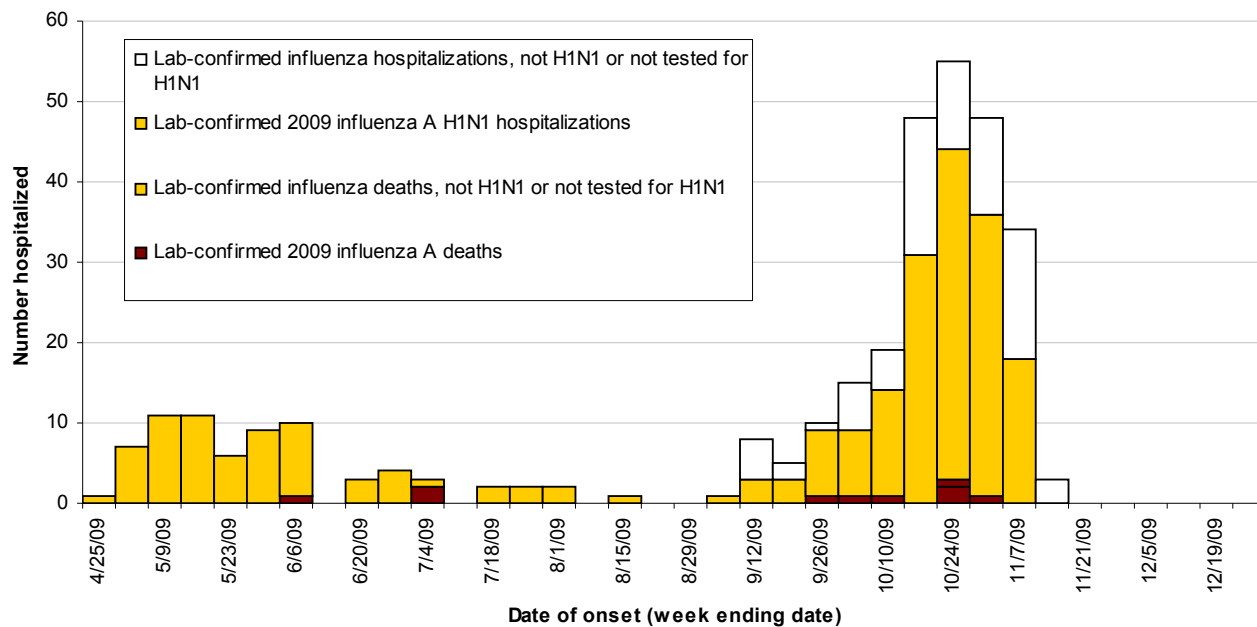
2008-2009 Influenza Season (through October 4th):

Lab-confirmed 2009 Influenza A H1N1 Hospitalizations: 82
 Lab-confirmed 2009 Influenza A H1N1 Deaths: 3

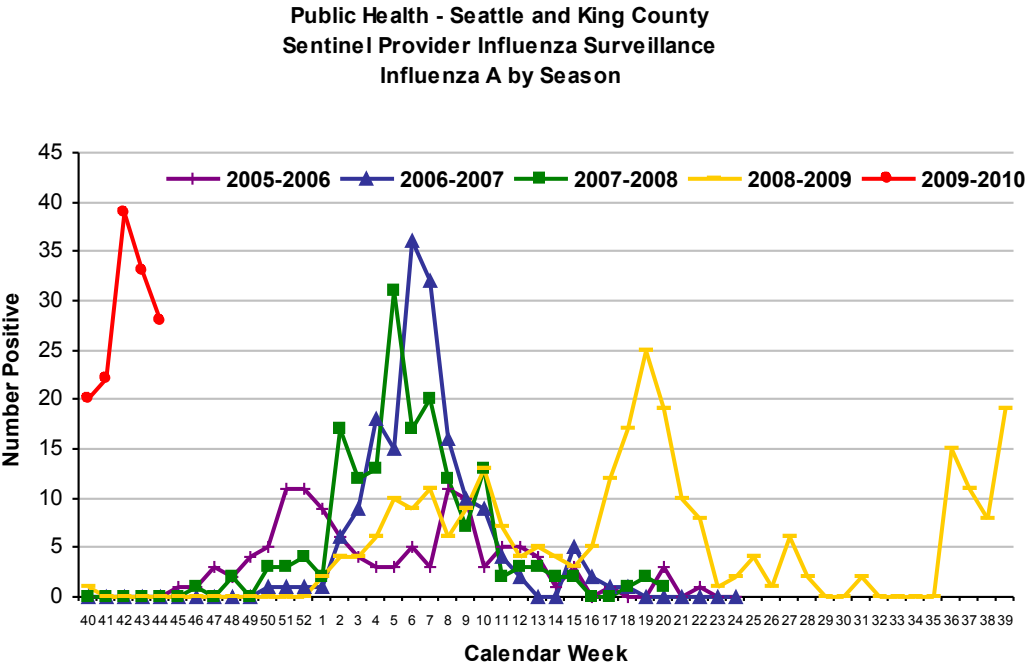
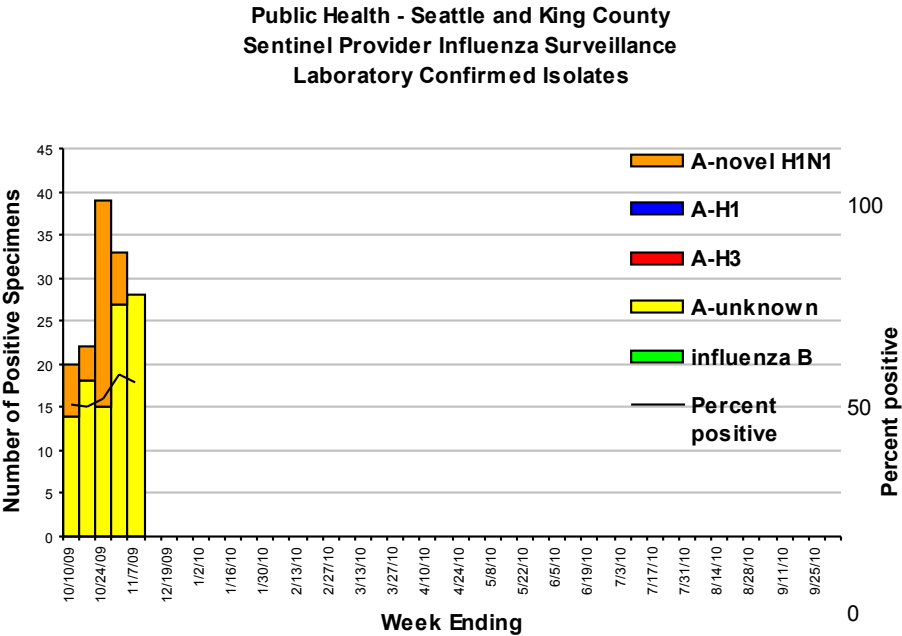
Lab-confirmed Influenza Hospitalizations, not H1N1 or not tested for H1N1: 12
 Lab-confirmed Influenza Deaths, not H1N1 or not tested for H1N1: 1

Influenza Hospitalizations in King County

Prior to 9/16/09 only lab-confirmed 2009 influenza H1N1 hospitalizations were notifiable; after 9/16/09 all lab-confirmed hospitalizations became notifiable

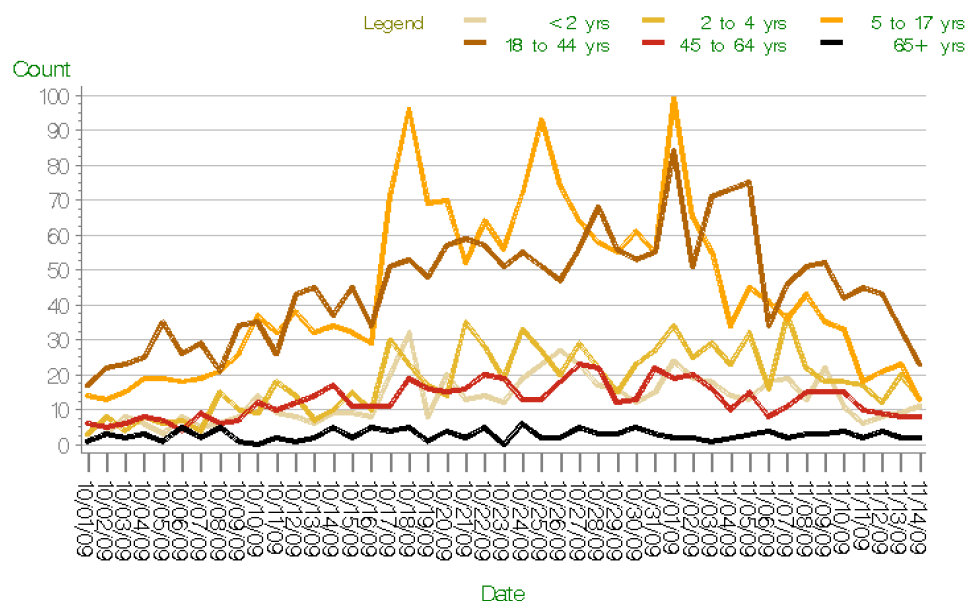


Sentinel Provider Surveillance through the Public Health Laboratory (updated 11/12/09): During week 44, 47 specimens were submitted by sentinel providers for respiratory virus testing, 28 of which were positive for influenza A and two of which were positive for parainfluenza. The number of specimens submitted for testing and number testing positive for flu has decreased over the past two weeks. All flu isolates that have been subtyped have been the 2009 H1N1 strain. To compare the current flu season with previous years, see graphs below.



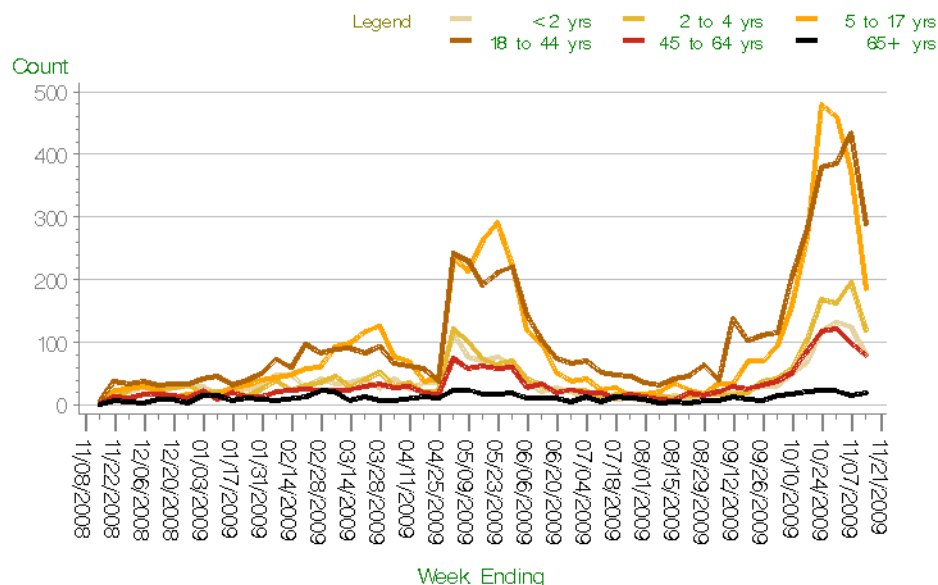
Syndromic Surveillance (updated 11/16/09): Emergency department (ED) influenza like illness (ILI) visits have been decreasing for 2 consecutive weeks, and were back down to the range observed during the spring 2009 H1N1 outbreak for the week ending 11/14/09. The volume of ED ILI visits is currently highest among adults ages 18-44 years, followed by children ages 5-17 years. ED admissions for ILI are also on a decreasing trend for a second consecutive week, but remain higher than the peak count observed during the 2008-09 seasonal influenza period and the peak count recorded during the 2009 H1N1 outbreak. Overall, the weekly count of ED admissions for pneumonia was on a downward trend from the peak in March 2009 through the end of September 2009, but began to increase in early October 2009, and remains elevated the week ending 11/14/09.

Daily Count of ED Visits for Influenza—Like Illness
By Age Group



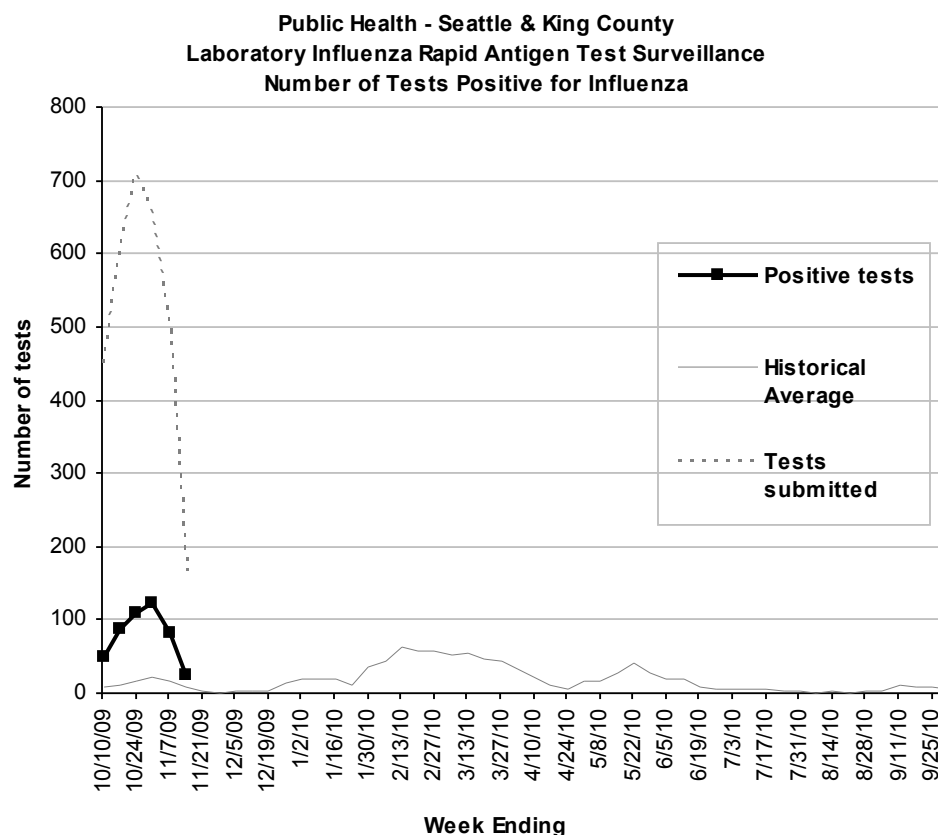
ALLHOSPITALS, Last Updated Nov 15, 2009

Weekly Count of ED Visits for Influenza—Like Illness
By Age Group



ALLHOSPITALS, Last Updated Nov 15, 2009

Rapid Antigen Surveillance (updated 11/16/09): Data from week 45 (ending 11/14/09) are currently available for only three laboratories. During week 45, 24 of 166 (14.5%) rapid antigen tests reported by hospital laboratories were positive for influenza, which is more than twice the average proportion observed this time of year. 16.4% of rapid antigen tests reported by hospital laboratories were positive for influenza in week 44. Note that rapid antigen tests are only 10-70% sensitive in detecting 2009 H1N1 influenza. For information on respiratory virus detections conducted at University of Washington's Clinical Virology Lab, see: <http://depts.washington.edu/rspvirus>

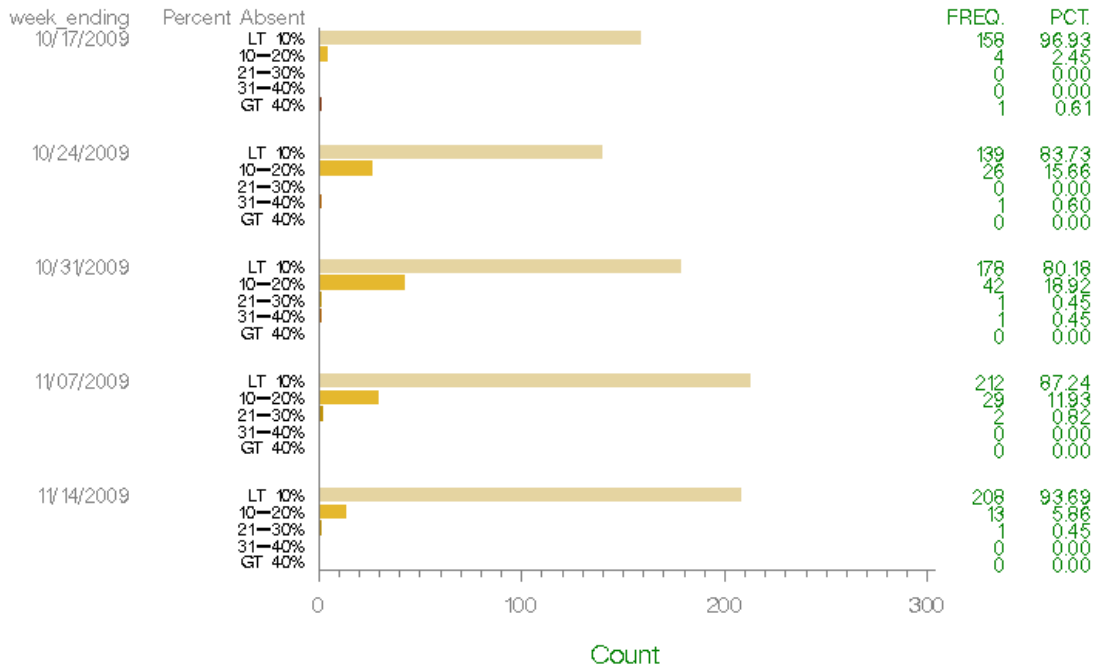


P & I (Pneumonia and Influenza) Deaths (updated 11/16/09): 5.9% of deaths were attributed to pneumonia and influenza during week 45 (national epidemic threshold not yet available). 4.1% of deaths were attributed to pneumonia and influenza during week 44, which was below the national threshold of 6.8%. During the peak of flu season, the national epidemic threshold typically ranges from 7.5 – 8.0%. The last week the national threshold was exceeded was in mid-September (6.4% vs. 6.3%).

Long-term Care Facilities (updated 11/16/09): Public Health has received reports of illness from nine long-term care facilities since mid-October. In several instances, illness was limited to one resident, or to staff who did not have patient contact. Three facilities were recommended to initiate antiviral prophylaxis to limit further transmission among residents and staff.

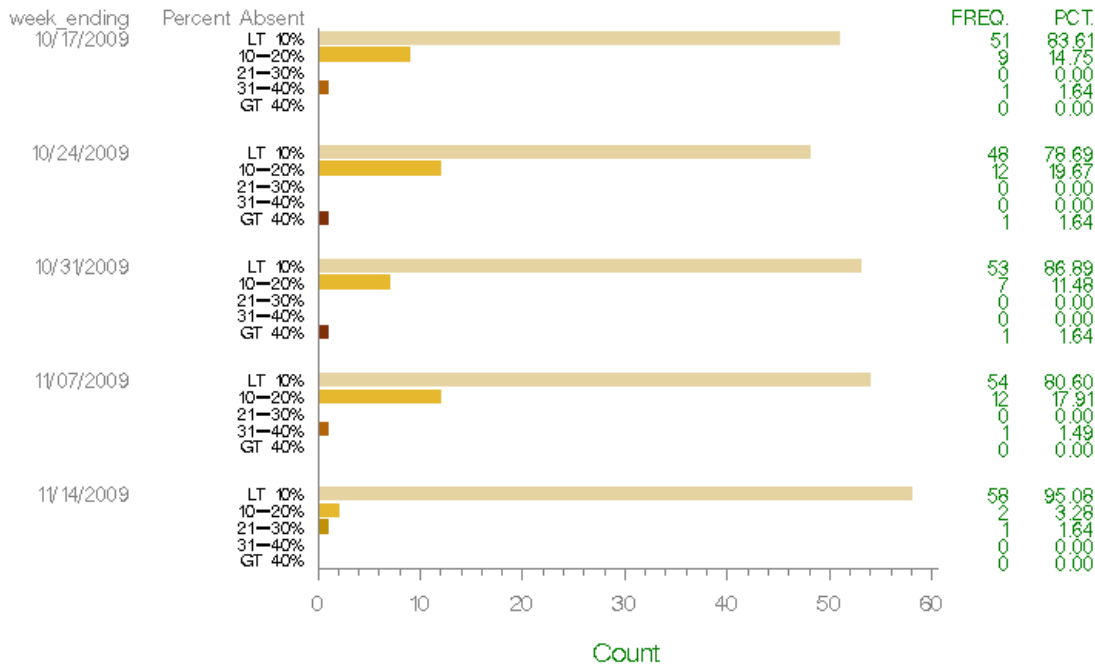
School Absenteeism (updated 11/16/09): Eighteen of 19 King County school districts are reporting absenteeism through our automated system. Historical data allowing examination of trends over time are only currently available for three districts. Absenteeism has been relatively stable for the past several weeks.

Distribution of Absenteeism by Grade Level
Elementary Schools



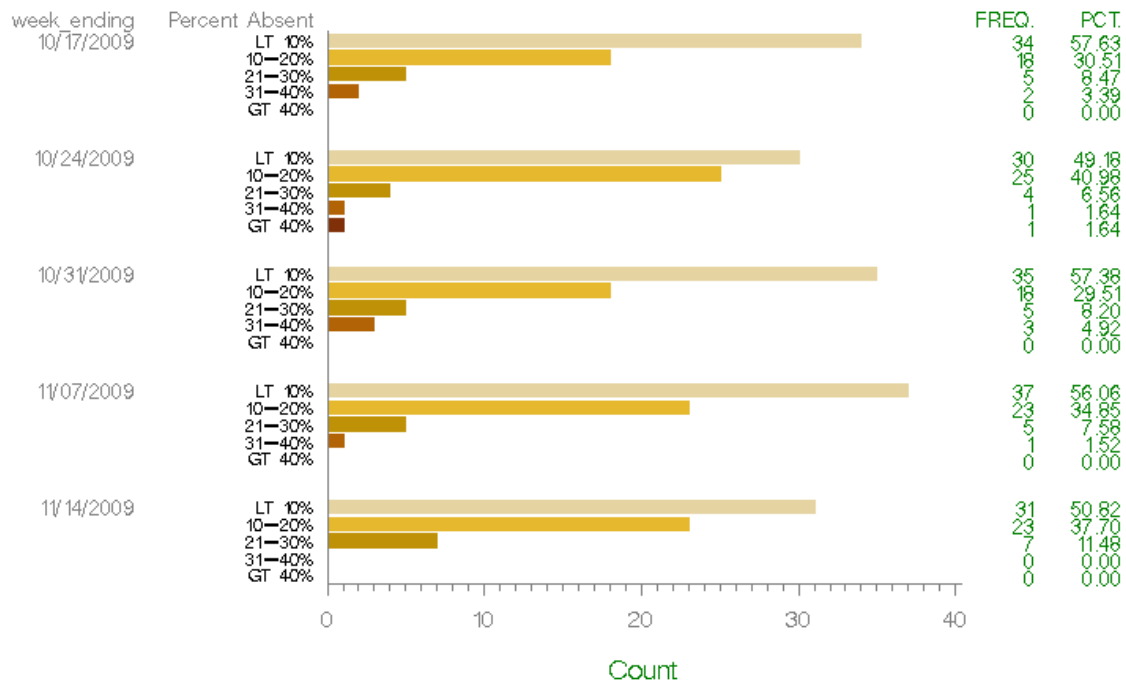
ALL, Last Updated Nov 16, 2009

Distribution of Absenteeism by Grade Level
Middle Schools



ALL, Last Updated Nov 16, 2009

Distribution of Absenteeism by Grade Level High Schools



ALL, Last Updated Nov 16, 2009

Beyond King County

United States (updated 11/16/09): During week 44 (November 1-7, 2009), influenza remained elevated in the U.S. The CDC synopsis for week 45 (November 8-14, 2009) is not yet available. The synopsis below reflects data from week 44.

- 3,834 (30.1%) specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division were positive for influenza.
- All subtyped influenza A viruses being reported to CDC were 2009 influenza A (H1N1) viruses.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was above the epidemic threshold for the sixth consecutive week.
- Thirty-five influenza-associated pediatric deaths were reported. Twenty-six of these deaths were associated with 2009 influenza A (H1N1) virus infection, eight were associated with an influenza A virus for which the subtype was undetermined, and one was associated with an influenza B virus infection.
- The proportion of outpatient visits for influenza-like illness (ILI) was above the national baseline. All 10 regions reported ILI above region-specific baseline levels.
- Forty-six states reported geographically widespread influenza activity, Puerto Rico and four states reported regional influenza activity, the District of Columbia reported local influenza activity, Guam reported sporadic influenza activity, and the U.S. Virgin Islands did not report.

For more on nationwide flu activity, visit the following site: <http://www.cdc.gov/flu/weekly/>

Washington State (updated 11/12/09): During week 44 (November 1-7, 2009), influenza activity remained widespread in Washington state. The synopsis for week 45 (November 8-14, 2009) is not yet available. The synopsis below reflects data from week 44.

- From September 19-November 7, the Department of Health (DOH) received reports of 918 hospitalized and 28 fatal cases of laboratory-confirmed influenza.
- During week 44, the number of hospitalized and fatal influenza cases reported to the DOH decreased slightly from the previous week (202 cases reported in week 43 vs. 191 cases reported in week 44). Of the 191 hospitalized and fatal cases reported during week 44, 68 reside east and 123 reside west of the Cascade Mountains.
- Almost all circulating influenza viruses in Washington are 2009 H1N1 viruses.
- Overall, influenza activity remains high in Washington but appears to be decreasing.
- The geographic distribution of influenza activity is widespread, meaning that influenza activity is elevated in over half the regions in Washington.

For more information on statewide flu activity, visit the following site:
<http://www.doh.wa.gov/EHSPHL/Epidemiology/CD/fluupdate.pdf>.